

**CLAIMS:**

1. A combustion system for a heat generator, comprising a premix burner and a combustion chamber, the premix burner being connected to the combustion chamber by means of an outlet, wherein the outlet comprises a multiply stepped transitional structure in the direction of flow of fluid so as to create turbulence in the fluid flow.
- 10 2. A combustion system as claimed in Claim 1, wherein the transitional structure of the outlet comprises three to five steps.
- 15 3. A combustion system as claimed in Claim 2, wherein four steps are provided in the outlet.
4. A combustion system as claimed in any one of the preceding claims, wherein the length to height ratio 20 of the steps is from 1:1 to 10:1.
5. A combustion system as claimed in Claim 4, wherein the length to height ratio of the steps is from 1:1 to 7:1.
- 25 6. A combustion system as claimed in any one of the preceding claims, wherein the outlet is in the form of a nozzle.
- 30 7. A heat generator having a combustion system as claimed in any one of the preceding claims.